

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-10, 12, 13, 15, 17-28 and 33 remain pending in the present application. Claims 11, 14, 16 and 29-32 are canceled without prejudice or disclaimer. Claims 1-8, 12, 13, 15, and 17-28 have been amended to address cosmetic matters of form and to incorporate the subject matter of canceled claims. New Claim 33 is added to recite the subject matter of canceled Claims 29-32 in a statutory format. The specification has been amended to identify enumerated elements of Figure 9. No new matter has been added.

By way of summary, the Official Action presents the following issues: An objection has been made to the drawings under 37 C.F.R. § 1.84(p)(5); Claims 2-4, 6-8, 22 and 24-25 have been objected to as reciting informalities; Claims 30-32 stand rejected under 35 U.S.C. § 112, first paragraph; Claims 19-22 stand rejected under 35 U.S.C. § 112, second paragraph; Claims 1-32 stand rejected under 35 U.S.C. § 101; Claims 1, 2, 4, 5, 7, 8, 10-18, 23 and 26-32 stand rejected under 35 U.S.C. § 102 as being unpatentable over Saffer (U.S. Patent No. 6,990,238); Claims 3, 6, 9, 19, 20, 24 and 25 stand rejected under 35 U.S.C. § 103 as being unpatentable over Saffer in view of Doerre (U.S. Patent No. 6,446,061); and Claims 21 and 22 stand rejected under 35 U.S.C. § 103 as being unpatentable over Saffer and Doerre in view of Branscomb (U.S. Patent No. 5,977,992).

OBJECTION TO THE DRAWINGS

The Official Action has objected to the drawings as failing to comply with 37 C.F.R. § 1.84(p)(5). In response, Applicants have amended the specification at page 15 to identify

the enumerated reference characters of Figure 9. Accordingly, Applicants respectfully request that the objection to the drawings be withdrawn.

OBJECTIONS TO THE CLAIMS

The Official Action has objected to Claims 2-4, 6-8, 22 and 24-25 as containing a spelling error. Applicants have amended the corresponding claims to correct the spelling error identified at paragraph 6 of the Official Action.

Accordingly, Applicants respectfully request that the objections to Claims 2-4, 6-8, 22 and 24-25 be withdrawn.

REJECTIONS UNDER 35 U.S.C. § 112, FIRST PARAGRAPH

The Official Action rejected Claims 30-32 under 35 U.S.C. § 112, first paragraph. As Applicants have canceled these claims, Applicants respectfully submit that this rejection has been rendered moot.

REJECTIONS UNDER 35 U.S.C. § 112, SECOND PARAGRAPH

The Official Action has rejected Claims 19-22 under 35 U.S.C. § 112, second paragraph as allegedly being indefinite. In response, Applicants have amended Claims 19-22 to eliminate the use of the claimed terminology “and/or”. Additionally, Claim 22 has been amended to provide antecedent basis for the claim terminology identified at paragraph 11 of the Official Action.

Accordingly, Applicants respectfully request the rejection of Claims 19-22 under 35 U.S.C. § 112, second paragraph, be withdrawn.

REJECTIONS UNDER 35 U.S.C. § 101

The Official Action has rejected Claims 1-32 under 35 U.S.C. § 101 as allegedly lacking utility. Applicants respectfully traverse the rejection.

Applicants note that Claims 1-10, 12, 13, 15 and 17-22 recite an apparatus. Claims 23-28 recite a method, and new Claim 33 recites a computer program product. Applicants note that all of these claim classes are statutory. Moreover, all of the claims are directed to a method of retrieving information from a map which includes displaying a representation of at least some aspects of a map and presenting information items corresponding to a viewed aspect of a map. Clearly, the filtering of data from a larger set of data such as a map and presenting useful visual information with regard to selected data is a useful, concrete and tangible result.

Moreover, MPEP § 2106 further provides that:

Office personnel have the burden to establish a *prima facie* case that the claimed invention as a whole is directed to solely an abstract idea or to manipulation of abstract ideas or does not produce a useful result. Only when the claim is devoid of any limitations to a practical application in a technological arts should it be rejected under 35 U.S.C. § 101 . . . Further, when such a rejection is made, office personnel must expressly state how the language of the claims has been interpreted to support the rejection. (emphasis added) See MPEP § 2106.

The rejection merely includes the conclusory statement "In the present case, Claims 1-32 recite an information retrieval apparatus for receiving and processing map data information. However, the information retrieval apparatus fails to produce a tangible and useful result from the process data, which is simply manipulation of an abstract idea."¹

Thus, Applicants respectfully submit that no express statement has been provided as to how the language of the claims have been interpreted to support the 35 U.S.C. § 101 rejection in violation of the guidelines of MPEP § 2106.

¹ Official Action at page 5.

Accordingly, should such a rejection be maintained in a subsequent communication with respect to any of the aforementioned claims, Applicants respectfully request the Examiner provide an express statement on the record in accordance with MPEP § 2106 guidelines explaining how such claim terminology, such as “map of information items,” “information items identified in a search,” “first clustering level,” and “data representative of an indication” is interpreted. More specifically, how such limitations are deficient to define a practical application in the technological arts of useful, concrete and tangible result. See State Street Bank & Trust Co. v. Signature Financial Group, Inc., 149 F.3d 1368, 1374, 47 (Fed. Cir. 1998) (discussing practical application of a mathematical algorithm, formula, or calculation.).

Accordingly, Applicants respectfully request that the rejection of Claims 1-32 under 35 U.S.C. § 101 be withdrawn.

REJECTIONS UNDER 35 U.S.C. § 102

The Official Action has rejected Claims 1, 2, 4, 5, 7, 8, 10-18, 23 and 26-32 under 35 U.S.C. § 102 as being unpatentable over Saffer. The Official Action contends that Saffer describes all the Applicants’ claimed features. Applicants respectfully traverse the rejection.

Applicants’ amended Claim 1 recites, *inter alia*, an information retrieval apparatus, including:

... a display processor operable in combination with a graphical user interface to display a representation of at least some of the positions of the array which correspond to identified information items as an n-dimensional display of display points within a display area of a graphical display, wherein the display processor is operable to generate data representative of an indication which when displayed on the graphical user interface provides a user, when viewing a first cluster in one of the hierarchical levels of a relative direction within the n-

dimensional space of the location of another cluster within the hierarchical level, ...

Saffer describes a system and associated method of analyzing information containing different types of data for presentation in an interactive visual format. Records or “objects” are defined as individual elements of a data set. Attributes are associated with objects and are analyzed to produce a high-dimensional vector for each record. The high-dimensional vectors are grouped in space (i.e., a coordinate system) to identify relationships, such as clustering among the various objects of the data set. The high-dimensional vectors are converted to a two-dimensional representation for viewing purposes. The two-dimensional representation of the high-dimensional vectors is described as a “projection”. The projections are viewed in accordance with different formats according to user selected options.² When objects are combined into clusters, the overall value for the cluster is represented as an average or other statistical measure, such as median of the object correlations, based only on those objects that are common between data sets. An indication of variation is provided since a cluster that contains 10 objects with a correlation of 0.8 and a cluster that contains 10 objects with a correlation of 0.9 and 1 with a correlation of -1 (both cluster with average of 0.8) may be of different interest to the user. Such an indication is achieved using multiple visualizations, for example by duplicating the previous query, that simultaneously show the average and the standard deviation, the minimum value or the maximum value.³

Conversely, an exemplary embodiment of the Applicants’ claimed advancement, an information retrieval apparatus is provided including a mapping processor operable to receive data representative of a map of information items from a set of information items identified in a search. The map provides the identified information items with respect to positions in an array in accordance with a mutual similarity of the information items. Similar information

² Saffer at column 4, line 34 through column 5, line 13.

³ Saffer at column 29, lines 21-33.

items map to similar positions in the array. The mapping processor forms a hierarchical clustering of information items providing a first clustering level of information items and at least one other clustering level of information items for clusters of information items within the first level of clusters. A display processor is provided in combination with a graphical user interface to display a representation of at least some of the positions of the array which correspond to identified information items as an n-dimensional display of display points within a display area of a graphical display. Data representative of an indication is generated and which when displayed on the graphical user interface provides a user, when viewing a first cluster in one of the hierarchical levels of a relative direction within n-dimensional space of the location of another cluster within the hierarchical level. The graphical user interface displays the indication of the relative direction of the other cluster within the display area of the graphical display. The data representing the number of information items within the cluster is displayable with respect to the indication.

Saffer does not disclose or suggest a display processor in combination with a graphical user interface to generate data representing an indication which when displayed on the graphical user interface provides a user when viewing a first cluster in one of the hierarchical levels of a relative direction with the n-dimensional space of the location of another cluster within the hierarchical level. Likewise, Saffer does not disclose or suggest a graphical user interface which displays an indication of the relative direction of the other cluster within the display area of the graphical display and the data representing the number of information items within the cluster with respect to the indication as currently recited in amended Claim 1 and any claim depending therefrom. As can be appreciated, while column 29, lines 21-23 of Saffer are cited as describing these aforementioned features, this portion of Saffer does not provide a graphical indication to a user of a location of another cluster of

information items within a same hierarchical level. As independent Claims 19, 23 and 33 recite substantially similar limitations to that discussed above, Applicants respectfully submit that these claims and their corresponding dependent claims are likewise allowable over the cited reference.

Accordingly, Applicants respectfully request that the rejection of Claims 1, 2, 4, 5, 7, 8, 10-18, 23 and 26-32 under 35 U.S.C. § 102 be withdrawn.

REJECTION UNDER 35 U.S.C. § 103

The Official Action has rejected Claims 3, 6, 9, 19, 20, 24 and 25 under 35 U.S.C. § 103 as being unpatentable over Saffer in view of Doerre. The Official Action contends that Saffer describes all the Applicants' claim limitations with the exception of providing first clustering level information items with a characterizing information feature.... However, the Official Action cites Doerre as describing this more detailed aspect of the Applicants' claimed advancement and states that it would have been obvious to one of ordinary skill in the art at the time the advancement was made to combine the cited reference for arriving at the Applicants' claims. Applicants respectfully traverse the rejection.

As noted above, Saffer does not describe all of the elements of the Applicants' amended claims for which it has been asserted. Likewise, as Doerre does not remedy the deficiency discussed above, Applicants respectfully submit that a *prima facie* case of obviousness has not been presented.

Accordingly, Applicants respectfully request that the rejection of Claims 3, 6, 9, 19, 20, 24 and 25 under 35 U.S.C. § 103 be withdrawn.

The Official Action has rejected Claims 21 and 22 under 35 U.S.C. § 103 as being unpatentable over Saffer in view of Doerre and in further view of Branscomb. The Official

Action contends that the combination of Saffer and Doerre describe all of the Applicants' claimed features with the exception of information items including a representative key stamp providing a representative image from the information item. However, the Official Action cites Branscomb as describing this more detailed aspect of the Applicants' claimed advancement and states that it would have been obvious to one of ordinary skill in the art at the time the advancement was made to combine the cited references for arriving at the Applicants' claims. Applicants respectfully traverse the rejection.

As noted above, neither Saffer nor Doerre describe all of the features of the Applicants' amended claims for which they have been asserted. Likewise, as Branscomb does not remedy the deficiency discussed above, Applicants respectfully submit that a *prima facie* case of obviousness has not been presented.

Accordingly, Applicants respectfully request that the rejection of Claims 21 and 22 under 35 U.S.C. § 103 be withdrawn.

CONCLUSION

Consequently, in view of the foregoing amendment and remarks, it is respectfully submitted that the present application, including Claims 1-10, 12, 13, 15, 17-28 and 33 is patentably distinguished over the prior art, in condition for allowance, and such action is respectfully requested at an early date.

Respectfully submitted,

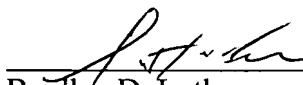
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